

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	3	(longitud\$6 and flux and coercivity).clm.	US-PGPUB	OR	OFF	2006/03/09 13:39
L2	514	(longitud\$6 and flux).clm.	US-PGPUB	OR	OFF	2006/03/09 13:39
L3	15	(longitud\$6 and flux and (magnetic\$4 adj record\$3)).clm.	US-PGPUB	OR	OFF	2006/03/09 13:41
L4	18	(coercivity and flux and (magnetic\$4 adj record\$3)).clm.	US-PGPUB	OR	OFF	2006/03/09 13:41

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	10/791431	US-PGPUB	OR	OFF	2006/03/06 17:31
S2	554	(360/55).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/06 17:49
S3	1177	(360/135).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/06 17:32
S4	75	(360/234.3).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/06 17:32
S5	50459	(magnet\$3 or magnetic\$4) adj record\$3	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:57
S6	283	S2 and S5	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/06 17:51
S7	161	S6 and ((magnetic or hard) adj (medium or disc or disk))	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:58
S8	32	S7 and (underlayer or (spacer adj layer))	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:58
S9	2019	(longitud\$6 adj record\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:04
S10	273	soft adj underlayer	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:04
S11	148	S9 and S10	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:35
S12	155	longitud\$6 adj medium	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:05
S13	2785	longitud\$6 and coercivity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:22
S14	598	S9 and S13	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:37
S15	671	soft with magnetic with underlayer	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:10

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S16	166	S14 and S15	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:38
S17	100	S15 same S9	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:49
S18	3120	perpendicular adj record\$3	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:31
S19	1254	S9 not S18	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:50
S20	38	S15 and S19	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:51
S21	8145	(perpendicular adj record\$3) or (perpendicular adj magnetic)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:55
S22	1115	S9 not S21	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:55
S23	8472	(perpendicular adj record\$3) or (perpendicular adj magnet\$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:55
S24	8472	(perpendicular adj record\$3) or (perpendicular adj magnet\$4) or (perpendicular adj magnetic adj record\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:31
S25	1114	S9 not S24	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 11:27
S26	227	S25 and underlayer	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 14:05
S27	186	S26 and coercivity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 13:59
S28	248	S25 and coercivity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 14:35
S29	147	S28 and (magnet\$4 near2 underlayer)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:03
S30	67	S28 and (magnet\$4 near2 flux)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 14:26

## EAST Search History

S31	49	S29 and flux	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 14:30
S32	53	S25 and (coercivity same flux)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 16:16
S33	2	S25 and (coercivity same flux same (vertical\$2 or horizontal\$2))	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 16:18
S34	68	S25 and (flux same (vertical\$2 or horizontal\$2))	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 16:19
S35	22	S25 and (flux same (vertical\$2 and horizontal\$2))	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/07 16:20
S36	119	tilted adj (record\$3 or media or medium)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 08:03
S37	497	tilted adj longitud\$6	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:42
S38	614	S37 or S36	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 08:04
S39	1	tilted adj longitud\$6 adj record\$3	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 08:05
S40	2019	(longitud\$6 adj record\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:03
S41	8472	(perpendicular adj record\$3) or (perpendicular adj magnet\$4) or (perpendicular adj magnetic adj record\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:03
S42	1114	S40 not S41	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:24
S43	60	S42 and (angle same flux)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:04
S44	1766	flux same coercivity	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:25
S45	2	S44 same (vertical adj component)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:26

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S46	108	S44 same (vertical or horizontal)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:29
S47	2	S46 and S42	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:29
S48	497	tilted adj longitud\$6	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:42
S49	9	S48 and ("360"/\$.ccls. or "428"/\$. ccls.)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:44
S50	119	tilted adj (record\$3 or media or medium)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:44
S51	18	S50 and ("360"/\$.ccls. or "428"/\$. ccls.)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 10:48
S52	2019	(longitud\$6 adj record\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 11:28
S53	8472	(perpendicular adj record\$3) or (perpendicular adj magnet\$4) or (perpendicular adj magnetic adj record\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 11:28
S54	1114	S52 not S53	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 11:28
S55	109	S54 and (coercivity not heat\$3)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 11:29
S57	41	S55 and flux	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 11:30
S58	413	longitudin\$4 adj (medium or media)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:21
S59	416	longitud\$6 adj (medium or media)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:21
S60	15	S59 and (flux same vertical)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:38
S61	8	"6320725"	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:38
S62	4	("6320725").URPN.	USPAT	OR	OFF	2006/03/08 13:41

## EAST Search History

S63	8	("4423450"   "4613918"   "4859501"   "4949207"   "5111351"   "5333086"   "5434733"   "5436779").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 13:42
S64	108367	(magnet\$3 or magnetic\$4) adj record\$3	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 13:57
S65	10102	S64 and ((magnetic or hard) adj (medium or disc or disk))	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 13:58
S66	356	S65 and (underlayer or (spacer adj layer))	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:00
S67	24	S66 and flux	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:00
S68	198	(longitud\$6 adj record\$3)	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:33
S69	0	S68 and (soft adj underlayer)	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:04
S70	0	S68 and (longitud\$6 adj medium)	US-PGPUB; USPAT; USOCR	OR	OFF	2006/03/08 14:05
S71	0	S68 and (longitud\$6 adj medium)	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:05
S72	27	S68 and (longitud\$6 and coercivity)	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:06
S73	124	soft with magnetic with underlayer	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:10
S74	125	longitud\$6 and coercivity	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:22
S75	910	perpendicular adj record\$3	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:31
S76	4813	(perpendicular adj record\$3) or (perpendicular adj magnet\$4) or (perpendicular adj magnetic adj record\$3)	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:31
S77	554	S76 and flux	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:36

## EAST Search History

S78	13	S77 and coercivity	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:33
S79	67	S76 and vertical and flux	EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/03/08 14:36
S81	1	"20020149876"	US-PGPUB; USPAT; JPO	OR	OFF	2006/03/09 11:42
S82	13	"5140578"	US-PGPUB; USPAT; JPO	OR	OFF	2006/03/09 11:42
S83	1	JP61198485	US-PGPUB; USPAT; JPO	OR	OFF	2006/03/09 12:56